January 21, 2008

Senate Committee on Public Health, Senior Issues, Long Term Care, and Privacy:

This letter is sent in support of SB394 to allow licensure of registered dieticians in the state of Wisconsin.

I am a family medicine provider in a rural community in Wisconsin. I care for patients with multiple medical conditions, including diabetes, hyperlipidemia, coronary artery disease, obesity, and many other conditions. I rely heavily on the education that can be provided to patients from a registered dietician. My practice cannot accommodate the time required with patients to teach them the required volume of information to improve their care. My education in the area of nutrition is not as complete as a registered dietician's knowledge base in these areas.

When patients are diagnosed with a new chronic medical condition such as diabetes, it can be a very emotional experience. They leave a clinic appointment with a minimal understanding of how their lives will be changed by their diagnosis. All of my newly diagnosed diabetes patients are referred for diabetes education. Some patient's are forced to cancel that appointment due to lack of insurance coverage for diabetes education services. The patients who do participate return for follow up with less anxiety, improved compliance, and a much more educated position to help them develop a treatment plan.

Ensuring the quality of nutrition advice by providing licensure to registered dieticians can only enhance their practice. Improved insurance coverage for their services should also be pursued. Many medical conditions can be improved with proper nutrition. Patient's deserve availability to accurate information regarding nutrition from well informed sources. Nutrition advise often needs to be individualized to each particular patient. Generic dietary advice provided by uneducated sources cannot be considered adequate.

Thank you for your consideration in this matter.

Amy Wagoner MD
Memorial Health Center Clinics Medford
143 South Gibson Street
Medford, WI 54451

January 17, 2008

Senate Committee on Public Health
Senior Issues, Long Term Care and Privacy

Dear Committee:

I am writing this in support of licensure for Registered Dietitians in the state of Wisconsin. I understand there is a hearing scheduled on January 23, 2008.

I have been a nurse practitioner for over 15 years in a rural setting in northern Wisconsin. In my experience, our Registered Dieticians have provided our area with an invaluable service for our patients. They provide nutrition therapy for a wide variety of patients, including those diagnosed with diabetes, obesity, hyperlipidemia and eating disorders. Our dietitians work as part of our team and our outcomes attest to the success of this approach. For example, our Registered Dietitian, Rosalyn Haase was instrumental in helping us obtain the 2005 Codman Award for our diabetes care at Memorial Health Center.

Many providers in our clinic have had patients who have been given incomplete or wrong information by unqualified providers. They have been convinced to purchase supplements that were a waste of money, been told that they have illnesses that they do not have and have agonized over the thought of having a "deficiency" in trace minerals according to their "hair samples". I have seen patients doing "colon cleansing" to the point of dehydration, they withhold certain foods from their children thinking it will help ADD or autism or even take vitamins to treat infertility. In summary, unqualified people are freely given out recommendations that have no scientific basis.

Based upon my experience, I believe that licensure is the best way to stop unqualified dietary care and enhance access to Registered Dietitians across the state. Our patients deserve the best care they can get and this bill would help ensure that happens.

Sincerely,

Kathryn M. Hemer, APNP
Nurse Practitioner, Family Medicine
Memorial Health Center – Medford Clinic
135 S. Gibson
Medford, WI 54451

Dr. Gene Musser
Medical Examining Board
WI Department of Regulation and Licensing

January 20, 2008

Dear Chairman Musser and Members of the Board,

I have been a practicing internist for the past 25 years. From June of 1983 until December of 2007, I practiced general internal medicine in Medford, Wisconsin. Since January of this year, I have taken a position with the Oneida Community Health Clinic in Green Bay. I am in support of the bill to license Registered Dietitians in Wisconsin. I would like to express my reasons for this.

First, Registered Dietitians have played a key role on my care team by providing Medical Nutrition Therapy to my patients with nutrition-related chronic diseases including hypertension, obesity, kidney disease, hyperlipidemia and diabetes. When my patients have the privilege of meeting with the Registered Dietitian, the have a better understanding of how to make food choices that will allow them to feel better and enjoy better clinical outcomes. Patients have a lot of questions about food. I don't have the time or training to provide the kind of education the Registered Dietitian can provide. When it comes to patients with diabetes especially, MNT by Registered Dietitians is absolutely essential. The education and training of Registered Dietitians enables their profession alone to help patients manage their blood sugar through MNT. They are able to give patients the knowledge and skills they need to achieve the best clinical outcomes while maintaining flexibility, choice and quality of life. I rely on the Registered Dietitian with advanced practice in diabetes management to adjust insulin. I request their recommendations for medical management for diabetes as well, since they understand the patient's food preferences and lifestyle better than other health professional on the team. When I ask patients how their visits with the RD went, they usually say something like, "I learned more from her in a few hours than I've learned from anyone else, " or "I wish I would have gone to see her sooner."

Second, I know that many people with nutrition-related chronic diseases don't have access to MNT by RDs due to lack of insurance coverage or lack or referrals made by some medical providers who worry that there will be a financial burden to the patients. I believe licensure of Registered Dietitians will enhance access to MNT by RDs through improved insurance coverage and greater recognition of their contributions to patient care. This is good for Wisconsin residents and the physicians who want to see them get safe and effective care from qualified nutrition professionals.

Thank you very much for your attention to this important matter.

Very truly yours,

Michael A. Haase, MD
Oneida Community Health Clinic
525 Airport Road
Oneida, WI 54155

WDA Testimony
Dietitian Licensure Bill
Policy Tandem Version

Good morning Chairman Carpenter and members of the committee;

My name is Jill Camber Davidson, RD, CD. I am the President of the Wisconsin Dietetic Association (WDA), and a Nutrition Education Consultant for the WI Department of Public Instruction. I have with me Judy Stadler, RD, MS, CD, who is a consulting dietitian in Fitchburg. We are here today to express our support for SB 394. We are members of The Wisconsin Dietetic Association, an organization of 1,625 food and nutrition professionals. WDA is an affiliate of the American Dietetic Association, a national organization with membership approaching 70,000. Registered Dietitians work in a variety of settings, including, hospitals, community and public health clinics, schools, nutrition education programs, workplace wellness sites, industry, and fitness centers among others.

Why is it important to license dietitians? For the same reasons the state licenses any health care professional: to clarify the policy as to who is qualified to provide care for the public and to protect the public from harm. Judy and I will be addressing the policy perspective of why we support licensure of dietitians. Two other members who are here today will testify why licensure is important to prevent incidents of harm. So I ask that if you have questions regarding patient harm please refer them to our colleagues when they testify.

Nothing in current statute prevents unqualified or untrained practitioners from practicing dietetics or nutrition care services. Even when harm is reported to the Department of Regulation and Licensing, the state has no recourse, so those who caused harm continue to do so.

There is a growing trend across the nation to license dietitians. 35 states currently license dietitians. The federal government has recognized Registered Dietitians as the nations' nutrition experts. This is evidenced by the fact that Medicare recognizes Registered Dietitians as eligible providers of medical nutrition therapy (MNT) for persons with diabetes or chronic renal failure who have Medicare Part B.

To be a Registered Dietitian, one must

1. Possess a bachelors degree in dietetics or nutrition from an accredited college or university
2. Complete 900 hours of supervised practice in a program accredited by the Commission on Accreditation of Dietetics Education, of the American Dietetic Association
3. Pass a national standardized exam
4. Maintain continuing professional education.

Licensure of dietitians would increase patient access to nutrition care services. Medical nutrition therapy (MNT) has been demonstrated to save health care dollars--reducing the need for medication and surgery and decreasing the length of hospital stays. *We have provided you with handouts that document those findings.*

With the rising rate of obesity in this country and the clearly established link between obesity and progressive chronic diseases such as coronary heart disease and diabetes mellitus, it is clear that many people need access to nutrition care services. By licensing dietitians, these valuable services would become available to more patients who need them because insurance companies would be more likely to cover the costs if a dietitian is licensed instead of certified.

One area of great public health concern is that of pediatric obesity, particularly among children who are covered by Medicaid. At this time, for Medicaid payment of nutrition services by a dietitian, it must be billed by a physician. In addition, Medicaid only allows one visit per practitioner a day. Once licensure of dietitians is law, Medicaid could add dietitians to a list of certified Medicaid providers. Thus, an obese child patient could receive both medical and nutrition services on the same day. This would increase access of obese children to needed nutrition care services. From previous experience, I've found that if appointments weren't on the same day, there were many more missed appointments and delays in treatment. In addition, it may cost even more with increased transportation costs (taxi vouchers) for the additional appointments, or may be too hard to work into the patient's caregiver's schedule."

Licensure of dietitians in Wisconsin would result in <u>no increase</u> in costs to Wisconsin taxpayers. The Dietitians Affiliated Credentialing Board is already in place and functioning effectively. Costs of the board performing its duties will be covered by licensure fees.

Licensure of dietitians, as set forth in this bill, will strengthen qualifications beyond the current certification statute in the following ways:

- Applicants must be Registered Dietitians to be become licensed.
- Applicants must pass a national Registered Dietitian examination. They must meet the same requirements required of Medicare providers of medical nutrition therapy (MNT)
- To maintain the license, dietitians or nutritionists must complete ongoing continuing professional education. This has long been required of Registered Dietitians, but is <u>not</u> required to maintain one's Certified Dietitian credential in Wisconsin.

Wisconsin Dietetic Association members believe our state's nutrition expert credential should meet the national standard—the Registered Dietitian. As such, we urge you to support SB 394 for the best interests of the patients of Wisconsin. Thank you for your consideration of this bill. At this time we would be happy to answer any questions.

WDA Testimony
Dietitian Licensure Bill
Patient Harm Tandem Version

Good morning Chairman Carpenter and members of the committee.

I am Susan Kasik-Miller, MS, RD, CD, and I am a Clinical Dietitian at Sacred Heart Hospital, Eau Claire, WI. With me I have Elizabeth Spencer, MSD, RD, CD, Diabetes Educator-Retired. We are also members of the Wisconsin Dietetic Association. We are here to urge your support of SB 394.

You have previously heard from colleagues of ours on the policy reasons why licensure of dietitians is a good idea. We would like to address why licensure of dietitians is necessary for patient safety in Wisconsin.

We and our colleagues have noted an alarming trend. A greater number of patients in our practice have been harmed or misled by unqualified nutritionists. This list of incidents gives examples. (*Hand out form of expanded "Incident Report Log"*)

There is also a case in Fairchild, Wisconsin of the owner of the business "Nutrition for Life" who told a 48 year old woman with a kidney transplant to stop "all that anti-rejection medicine you are taking and use natural vitamins and minerals". This advice resulted in the rejection of her transplanted kidney and the need to initiate dialysis again. An evaluation of the vitamins and minerals she was taking found that she was using over 35 different "natural supplements". It was determined that only 5 were compatible with her medical problems.

Another example is a man with renal failure who under the urging of his wife went to see a "nutritionist" with a nutrition certificate from an internet college. He was instructed to eat a cup of legumes 3 times a day. After faithfully following this advice for about 2 weeks the man began to feel weak and experience heart dysrythmia. He was admitted to intensive care where his serum potassium was over 7 causing a severe slowing of his heart which ultimately could result in death. The patient was dialyzed for about 5 treatments spending 2 ½ days in intensive care and another 2 days on a medical floor. Prior to discharge he and his wife were counseled by a Registered Dietitian on a diet to accommodate his kidney failure and delay the need for permanent dialysis.

To re-iterate what our colleagues said previously, the national standard for the nutritional expert is licensure. Thirty five other states have all ready recognized this and made it the law. For the best interests of the patients of Wisconsin, and to avoid any future incidents of harm as we have discussed here today, we ask that you support passage of SB 394.

At this time we would be happy to answer any further questions the committee may have.

mnt
MEDICAL NUTRITION THERAPY works

American Dietetic Association
www.eatright.org | Your link to nutrition and health™

MNT PROVIDING RETURN ON INVESTMENT

Research demonstrates the cost-effectiveness of medical nutrition therapy.

— University of Virginia School of Medicine[1] reported that an RD case management approach to lifestyle care can improve diverse indicators of health, including weight, waist circumference, health-related quality of life, and use of prescription medications, among obese persons with type 2 diabetes. These results were seen with a minimal cost of $350 per year per patient.

— Pfizer Corporation[2] projected $728,772 in annual savings from reduced cardiac claims of their employees from an on-site nutrition/exercise intervention program.

— Massachusetts General Hospital[3] reported that participants receiving group MNT in a 6-month randomized trial had a 6 percent decrease in total and LDL-cholesterol levels, compared with the group not receiving MNT. The non-MNT group had no reduction in total cholesterol or LDL levels. The study revealed a savings of $4.28 for each dollar spent on MNT, much less than the cost of statin therapy.

— The University of California Irvine[4] demonstrated lipid drug eligibility was obviated in 34 of 67 subjects, the estimated annual cost savings from the avoidance of lipid medication was $60,652.

— U.S. Department of Defense[5] saved $3.1 million in the first year of a nutrition therapy program utilizing RDs counseling 636,222 patients with cardiovascular disease, diabetes and renal disease.

— Oxford Health Plan[6] saved $10 for every $1 spent on nutrition counseling for at risk elderly patients. Monthly costs for Medicare claims alone tumbled from $66,000 before the nutrition program to $45,000 afterwards. As a result, the health plan continued use of nutrition screenings.

[1] Wolf AM, Conaway MR, Crowther JQ, et al. "Translating lifestyle intervention to practice in obese patients with type 2 diabetes: Improving Control with Activity and Nutrition (ICAN)" study. Diabetes Care 2004;27:1570–6.

[2] Pfizer Corp., Lipid Intervention Program, http://healthproject.stanford.edu/koop/pfizer99/documentation.html. Accessed 2/16/01.

[3] Delahanty LM, Sonnenberg LM, Hayden D, Nathan DM. "Clinical and cost outcomes of medical nutrition therapy for hypercholesterolemia: A controlled trial". J Am Diet Assoc. 2001;101:1012-1016.

[4] Sikland, G et al. "Medical Nutrition Therapy lowers serum cholesterol and saves medication costs in Medicare populations with hypercholesterolemia". J AM Diet Assoc. 1998, 98:889-894.

[5] The cost of Covering Medical Nutrition Therapy Services under TRICARE: Benefit Costs, Cost Avoidance and Savings. Final report prepared by the Lewin Group, Inc. for the Department of Defense Health Affairs, 11/15/98.

[6] Oxford Health Plan's pilot nutrition screening program applied to Medicare population in New York, between 1991-1993.

KEY STAKEHOLDERS ACKNOWLEDGE NUTRITION SERVICES PROVIDED BY REGISTERED DIETITIANS CONTINUED

Cancer—nutrition management for older adults: The Nutrition Screening Initiative states, "Nutrition intervention for patients undergoing definitive therapy for cancer is highly individualized and should be based upon risks associated with the provision of nutritional support and expected benefits to be accrued. When patients are unable to meet their nutritional needs via the oral route, the services of [an RD] should be enlisted to assist the patient in maintaining optimal achievable nutritional status" (8).

Management of chronic kidney disease and pre-end-stage renal disease in the primary care setting: The Veterans Health Administration, Department of Defense indicates: "All patients with chronic renal disease should have an assessment by a renal dietitian soon after diagnosis" (9).

Hypertension: Doctors estimate that if Americans followed the DASH diet, a diet low in fat and high in vegetables, fruits, and low fat dairy foods, and had the degree of blood pressure reductions seen in the "Dietary Approaches to Stop Hypertension" trial of 1997, there would be about 15 percent less coronary heart disease and 27 percent fewer strokes in the U.S (10).

Healthful diet counseling: The US Preventive Services Task Force found good evidence that "medium- to high-intensity counseling interventions can produce medium-to-large changes in average daily intake of core components of a [healthful] diet (including saturated fat, fiber, fruit, and vegetables) among adult patients at increased risk for diet-related chronic disease. Intensive counseling interventions that have been examined in controlled trials among at-risk adult patients have combined nutrition education with behavioral dietary counseling provided by a nutritionist, dietitian, or specially trained primary care clinician (eg, physician, nurse, or nurse practitioner)" (11).

Hospital utilization: The Lewin Group documented an 8.6% reduction in hospital utilization and 16.9% reduction in physician visits associated with MNT for patients with cardiovascular disease. The group additionally documented a 9.5% reduction in hospital utilization and 23.5% reduction in physician visits when MNT was provided to persons with diabetes mellitus (12).

see reverse side for resources

Insurance Coverage of Lifestyle Change Critical to Control Health Care Costs and Burden of Illness

Elizabeth Spencer, RD, MS, CDE

January 11, 2008

Annual health care expenditures in the US have now reached 2 trillion dollars. Much of the costs can be attributed to treatment of lifestyle related chronic illnesses, such as heart and blood vessel disease, diabetes, hypertension, and obesity. Health behaviors contributing to these chronic illnesses are poor diet, physical inactivity, and tobacco use. Diet and physical inactivity are second only to tobacco use in leading causes of death in the US, and the number of deaths related to poor diet and physical inactivity continues to increase (JAMA 2004; 291:1238-1245).

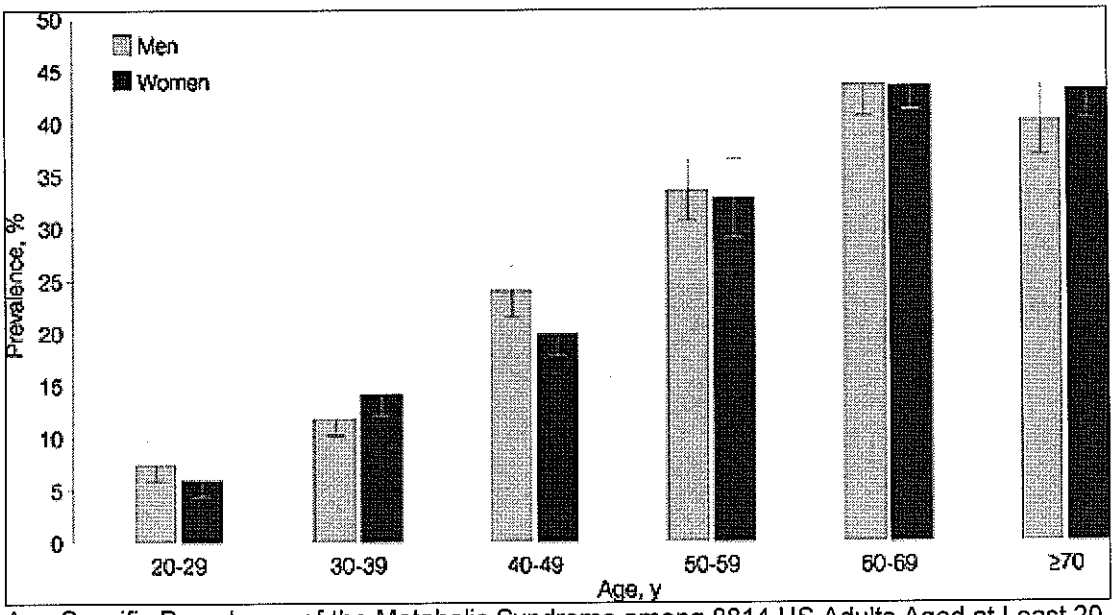
Most of the health care expenditures are for treatment of advanced disease with a much smaller amount spent on preventing the diseases upfront or counseling for lifestyle change for those at risk or in the early stages of their disease. Cost savings and decreased morbidity and mortality are realized through delay or prevention of disease, decreased medication required for treatment, and decreased loss of productivity and days lost from work.

Adoption of healthy behaviors (healthy diet, more physical activity, not smoking) by everyone is critical for the prevention of lifestyle related chronic illnesses and is an indispensable part of the health care treatment for lifestyle related chronic illnesses.

Currently many health insurance companies do not cover the cost of screening or lifestyle counseling to prevent or treat lifestyle related chronic illnesses. **Health care reform should emphasize evidence-based lifestyle counseling by qualified health care professionals (physicians, dietitians, nurses, health educators) to decrease the burden of health care costs and health consequences, and improve quality of life.**

The Health Burden of Chronic Illness

Approximately 47 million Americans or 25% of US adults have 3 or more risks for heart and blood vessel disease (cholesterol disorders, diabetes and pre-diabetes, hypertension, obesity,) with the prevalence increasing each decade up to age 60 when more than 40% of US adults have at least 3 or more cardiovascular risk factors. (See graph)



Age-Specific Prevalence of the Metabolic Syndrome among 8814 US Adults Aged at Least 20 Years, by Sex, National Health and Nutrition Examination Survey III, 1988-1994. Data are presented as percentage (SE). (*JAMA* 2002; 2887:356-359). Metabolic Syndrome is defined as having 3 or more cardiovascular risk factors.

- Cardiovascular disease, including heart disease and stroke, remains the leading cause of death in the United States with an annual death rate of 232 deaths per 100,000 adults in 2003. Cardiovascular disease accounts for nearly 40% of all annual deaths in the United States with a projected cost of $431.8 billion in 2007.

  (American Heart Association, Heart Disease and Stroke Statistics, 2007 and http://www.americanheart.org/downloadable/heart/1166712318459HS_StatsInsideText.pdf
  Centers for Disease Control and Prevention, Division for Heart Disease and Stroke Prevention, January 2007 http://www.cdc.gov/nccdphp/publications/AAG/pdf/dhdsp.pdf)

- Diabetes is widely recognized as one of the leading causes of death and disability in the United States. The rapid increase in diabetes parallels the increase in obesity and overweight. The diagnosis of diabetes has more than doubled to 14.6 million in 2005, and it is estimated that an additional 6.2 million US adults remain undiagnosed. The total direct medical and indirect cost of diabetes in 2002 was $132 billion. The average health care cost for a person with diabetes is $13,243 compared to $2,560 for a person without diabetes.

  Diabetes, Disabling Disease to Double by 2050, Centers for Disease Control and Prevention, 2007 http://www.cdc.gov/nccdphp/publications/aag/ddt.htm

- Long-term complications of diabetes affect almost every part of the body. The disease often leads to blindness, heart and blood vessel disease, stroke, kidney failure, amputations, and nerve damage. Uncontrolled diabetes can complicate pregnancy, and birth defects are more common in babies born to

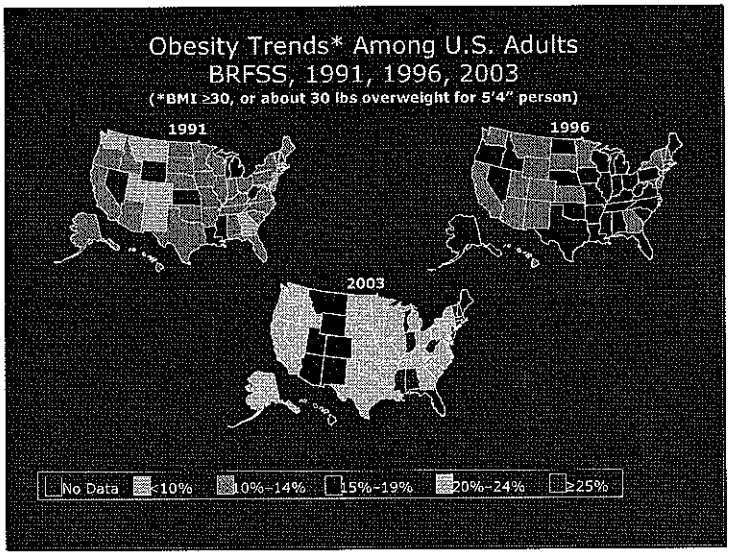
women with diabetes. About 65% of deaths among those with diabetes are attributed to heart disease and stroke.

Centers for Disease Control Diabetes Fact Sheet, 2005
http://www.cdc.gov/diabetes/pubs/estimates05.htm#prev

- Hypertension is the most common primary diagnosis in America. It affects approximately 50 million individuals in the United States and approximately one billion worldwide. The relationship between blood pressure and risk of cardiovascular events is continuous, consistent and independent of other risk factors. The ultimate public health goal of antihypertensive therapy is the reduction of cardiovascular and renal morbidity and mortality.

- Among US adults, the prevalence of obesity and overweight has increased rapidly over the last 15 years to 65% and parallels the increase in diabetes. Obesity is associated with increased morbidity, mortality and increased cost of health care, with costs of $75 billion in 2003 with about half of these costs financed through Medicare and Medicaid (*Obesity Res* 2004; 12:18-24).

  Centers for Disease Control and Prevention, 2007
  http://www.cdc.gov/nchs/products/pubs/pubd/hestats/obese/obse99.htm



Evidence-Based Lifestyle Change Decreases Burden of Chronic Illness

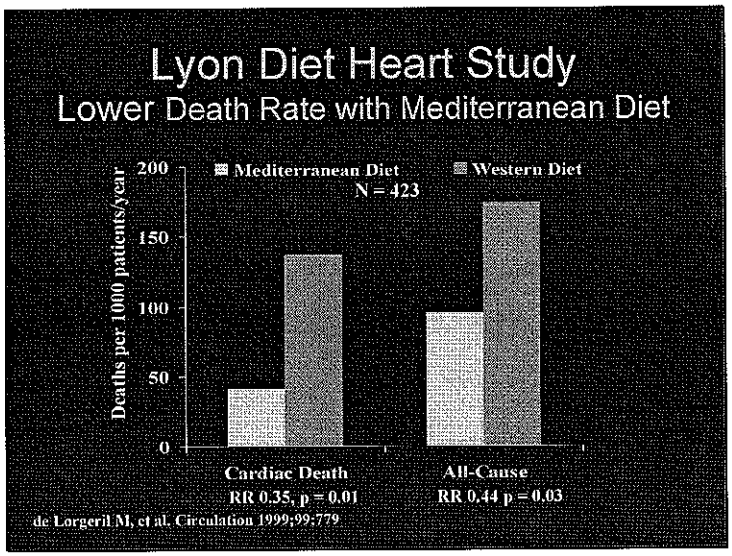
Diet for treatment of cholesterol disorders and prevention of heart disease

Eating a low saturated fat diet, achieving a healthy body weight and increasing physical activity have been shown to decrease the incidence of cardiovascular disease and prevent type 2 diabetes. A Mediterranean-type diet may have additional benefits on other parameters of cardiovascular disease and diabetes risk beyond those improved by the traditional low fat, low calorie diet (*Circulation* 2007; 115:e32-e35).

Studies using a total diet approach show great potential to effectively prevent and treat coronary heart disease—likely due to the synergistic and cumulative effects of multiple dietary components on multiple biological pathways (*JAMA* 2002; 288:2569-2578). In addition to LDL-cholesterol lowering, recent research suggests that diet can have positive effects on other cardiovascular risks, including inflammation, oxidation and platelet function.

- In a review of the literature on diet and heart disease, Hu concluded that a Mediterranean-type diet rich in fruits, vegetables, nuts and whole grains, polyunsaturated omega 3 fats, and low in refined carbohydrates, saturated and trans fats can decrease the incidence of cardiovascular disease in Western populations (*JAMA* 2002;288:2569).

- One of the first studies to show the benefits of the Mediterranean-type diet was the Lyon Diet Heart Study. In this study, **subjects with pre-existing heart disease who consumed a Mediterranean type diet compared to a 'prudent' low fat Western diet had a 76% reduction over 4 years of subsequent cardiac events** (*Circulation* 1999; 99:779).



- In the Nurses' Health Study, a combination of healthy behaviors (not smoking, being physically active, BMI<25, moderate alcohol intake and consuming a cardioprotective diet) resulted in coronary events 80% lower than women who did not adhere to the low-risk lifestyle *(NEJM* 2000; 343:16).

- In a study by Esposito et. al. (*JAMA* 2004;292:1440), participants who followed the intervention Mediterranean-type diet compared to a low fat 'prudent' diet reduced their overall prevalence of Metabolic Syndrome by about one-half. The level of physical activity in both groups was similar.

After controlling for more weight loss (4 kg in the Mediterranean diet group compared to 1.2 kg in the control group), the results showed improvements independent of weight on blood pressure, lipid profile, endothelial function as measured by L-arginine, insulin resistance, and inflammation as measured by C-reactive protein.

- A small study of hyperlipidemic adults that combined cholesterol-lowering foods, (almonds, soluble fiber, soy protein, and plant stanol esters) and dubbed the Portfolio Diet decreased both LDL-cholesterol and C-reactive protein by approximately 30% in one month. In this short term metabolic study the diet was as effective as the starting dose of a statin (*JAMA* 2003;290:502-510). In a longer 12 month follow-up study where participants chose and prepared their Portfolio Diet meals at home, the mean LDL-cholesterol reduction was 13%, with 1/3 of subjects lowering LDL by >20% (*Amer J Clin Nutr* 2006;83:582-591).

The table shows potential cumulative effects of combining multiple dietary interventions are as effective as the starting dose of a statin drug for cholesterol lowering.

Approximate & Cumulative LDL-Cholesterol Lowering Achievable by Dietary Modification Compared to Statin

Dietary Component	Intake	Approximate LDL Reduction, %
Saturated fatty acids	<7% calories	8-10
Dietary cholesterol	<200 mg/day	3-5
Body weight	Lose 10 lb	5-8
Viscous (soluble fiber)	5-10 gm/day	3-5
Plant stanol/sterol esters	2-3 gm/day	6-15
Soy protein	25 gm/day	5
Cumulative LDL-cholesterol lowering from diet		20-30*
Approximate LDL-cholesterol lowering from statin		20-50 @ 40 mg/day

*LDL-cholesterol reductions are cumulative estimates based on the literature and may not be strictly additive. The table shows potential benefits from combining various LDL lowering options.

Source: Third Report of the Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III) 2001
http://www.nhlbi.nih.gov/guidelines/cholesterol/atp3_rpt.htm

The DASH Diet for hypertension

Major lifestyle modifications shown to lower blood pressure include weight reduction in those individuals who are overweight or obese, adoption of the Dietary Approaches to Stop Hypertension (DASH) eating plan which is rich in potassium, magnesium and calcium, dietary sodium reduction, physical activity and moderation of alcohol consumption.

Lifestyle modification can decrease the amount of medication required to control blood pressure. **For example, a 1600 mg sodium DASH Diet lowers blood pressure similar to single drug therapy.**

The table shows the cumulative effect of lifestyle modification on blood pressure.

Effects of Lifestyle Modification to Manage Hypertension

Modification	Recommendation	Approximate Systolic BP Reduction, mmHg
Weight reduction	BMI 18.5-24.9	5-20 with 10-kg weight loss
DASH* Diet	Diet rich in fruits, vegetables, & low-fat dairy products with reduced saturated & total fat	8-14
Dietary sodium reduction	Intake of not >100 mEq/day (2.4 gm sodium or 6 gm sodium chloride)	2-8
Physical activity	Aerobic activity, such as brisk walking for 30 min/day, most days of the week	4-9
Alcohol	Most men: Not >2 drinks/day Women & lighter weight men: Not >1 drink/day	2-4

*DASH-Dietary Approaches to Stop Hypertension

Appel LJ et al. A clinical trial of the effects of dietary patterns on blood pressure. (*NEJM* 1997;336:1117-24).

Sacks FM et al. Effects on blood pressure of reduced dietary sodium and the dietary approaches to stop hypertension (DASH) diet. (*NEJM* 2001;344:3-10).

The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (*JAMA* 2003;289:2560-2572)
http://www.nhlbi.nih.gov/guidelines/hypertension/jncintro.htm

Appel LJ et al. Dietary Approaches to Prevent and Treat Hypertension: A Scientific Statement from the American Heart Association. (Hypertension 2006;47:296-308)
http://hyper.ahajournals.org/cgi/content/full/47/2/296

Diet and diabetes
Two separate diabetes prevention studies, one in the US and another in Finland, showed that lifestyle change can decrease the incidence of new onset diabetes in people at risk for diabetes.

- In the Diabetes Prevention Program, **obese patients at risk for diabetes achieved a 58% relative reduction in new onset diabetes with intensive lifestyle intervention—a 5-7% weight loss and increased physical activity**. (NEJM 2002; 346:393-403).
  http://diabetes.niddk.nih.gov/dm/pubs/preventionprogram/

- In the Finnish study (*NEJM* 2001; 344:1343) the intervention was similar but included a Mediterranean-type diet instead of a Western low fat diet, and 30 minutes exercise per day to achieve a 5% weight loss. **Patients in the intervention group lost more weight and had a significantly lower rate of developing diabetes—11% in the lifestyle intervention group vs. 23% in the control group. The beneficial effects continued after 3 years** (*Diabetes Care* 2003;26:3230).

Numerous studies have shown nutrition intervention by dietitians has a positive impact on diabetes control and reduces the cost of diabetes care by decreasing the amount of medication required.

- Nutrition therapy based on practice guidelines from the American Dietetic Association has been shown to improve patient outcomes for both Type 1 and Type 2 diabetes (*Diabetes Care* 2002; 25:608-613 and *J Am Diet Assoc* 2003; 103:827-831).

- Moderate weight loss with reduced calorie intake and increased physical activity in obese patients with Type 2 diabetes decreases insulin resistance, decreases fasting blood sugar, and reduces the need for medications. (*Diabetes Care* 2004; 27:2067-2073).

- In the Improving Control with Activity and Nutrition (ICAN) study, obese participants with Type 2 diabetes in the dietitian-led case management group achieved greater weight loss, needed fewer medications and had greater improvement in health-related quality of life than patients receiving usual care (*Diabetes Care* 2004;27:1570-1576).

Opinions expressed in this paper are those of Elizabeth Spencer. Excerpts were taken from the web-based Medical Nutrition Handbook, University of WI Department of Medicine, January 11, 2008. The Medical Nutrition Handbook was created as part of the Nutrition Academic Award at the University of Wisconsin, funded by a grant from the NHLBI, NIH. Elizabeth Spencer, RD, MS, CDE is the primary author, and Gail Underbakke, RD, MS, and Patrick McBride, MD, MPH have reviewed the content http://www.medicine.wisc.edu/mainweb/DOMPagesText.php?section=naa&page=medicalnutritionhandbook .

INCIDENT REPORT LOG

Reporting RD	"Nutritionist" Credentials or Title	Presenting Problem/Incident	Nutrition/Health Outcome
Clinical Dietitian Brookfield	"Nutritionist" or "Herbalist" (credentials unknown)	Upper class family in an urban area had their 15 y/o son with down's enrolled in RD's clinic. Pt had elevated insulin, and BMI >40. Along with RD's program, pt also sees a personal trainer who has had her own wt loss success. The trainer referred mom to a "nutritionist" and herbalist in the Brookfield area who told this mother to cut all fluid dairy and most calcium-rich foods from the pt's diet because calcium has a negative effect on the body and off sets metabolic functions.	Regardless of providing sound nutrition information and research supporting calcium consumption, the mother was very hesitant to re-introduce dairy and calcium-rich foods back to the pts diet. Mom did agree to 1 serving a day plus a MVI. We draw labs on a regular basis, and 3 months after mom took calcium out of the diet, the pts calcium level dropped. Fortunately, this was enough for mom to start increasing calcium rich foods back into the pts diet. The pt is currently consuming 3-4 servings per day and no longer seeing the "nutritionist".
Public Health Nutritionist Chippewa Falls	"Nutritionist" w/ 2-yr degree from American Academy of Nutrition (California) $175/hr (per Birth to 3 staff)	Birth to 3 Program referred toddler w/ multiple food allergies severe enough to cause anaphylaxis to Public Health RD. Per Birth to 3 staff person, mom had been receiving nutrition counseling for her child from a "nutritionist" who prescribed mega doses of cod liver oil and fish oil supplements in an attempt to treat the toddler's severe eczema. The "nutritionist" also had child on a strict diet, which contained all plant proteins. Without the fish fats, the diet was very low in essential fatty acids. The diet was also very low in iron and zinc. The child was failing to thrive.	The doses of supplements were large enough to put the child at risk for vitamin A toxicity (potentially fatal) as well as excessive bleeding. Though no clinical testing was done to confirm diet-related mineral deficiencies, zinc and iron deficiency were suspected. Failure to thrive, or growth failure, indicates an infant's nutritional needs are not being met; delayed correction of the problem can result in permanent stunting of growth and development. Upon meeting with the Public Health RD, a balanced diet was planned around the child's multiple food allergies and the eczema is at times completely cleared. Though it does occasionally flare mildly, this is thought by health care providers and family to be related to non-diet triggers.
Clinical Dietitian Eau Claire	"Nutritionist" w/ 2-yr degree from American Academy of Nutrition* (California) *not accredited and no longer exists	A 73 year old man with Stage 4 kidney failure was seen by "nutritionist" at the urging of his wife. The man was told to eat more legumes (beans), fruits and vegetables and whole grains.	While this is great advice for most of the healthy population, people with kidney disease need to avoid these foods due to the high potassium and phosphorus content. After following the diet for 10 days the man was admitted to critical care due to a slow heart rate (bradycardia) from an elevated potassium level. Acute dialysis was started on this patient to correct his abnormal electrolytes. Education to address diet for kidney disease was provided to the patient and his wife prior to discharge home. Total time in critical care was 2.5 days and another 1.5days on a medical floor.